

II. EMERGENCY OPERATIONS PLAN

A. GENERAL

The Emergency Operations Plan for the Crystal Lake Dam is designed as a course of action to reduce the possibility of an unanticipated failure of the dam, and to minimize the affects of a failure on the public. The means by which this is to be accomplished is by continued surveillance and a monitoring program using both routine inspections and intensive monitoring during severe rain storms.

B. INSPECTION PROGRAM

The existing periodic inspection and maintenance conducted by the DEP Eastern District are to be modified to incorporate the operation, inspection and maintenance program set forth in the preceeding section of this manual.

Specific field operations and inspection items to be implemented during an emergency are delineated in the following sections.

C. STATEWIDE EMERGENCY OPERATIONS MANUAL

1. The Statewide "DEP - Inland Flooding - Emergency Operations Manual" prepared by the Water Resources Unit, Flood Management Section sets forth emergency operation procedures relative to the following items on a statewide level:
 - a. Implementation
 - b. Flood Emergency Operations Center
 - c. Personnel Assignments
 - d. Emergency Procedures
2. The Statewide manual should be consulted for information relating to the above items.

D. PROCEDURES FOR CRYSTAL LAKE DAM

1. Early Warning

The intent of the Early Warning is to inform local authorities that a situation exists at the Crystal Lake Dam which could develop within the next few hours into a serious hazard to downstream residents making evacuation necessary. The "Limits of Potential Flooding" map (Figure No. 3) should be reviewed.

The Early Warning should be issued when any of the following situations occur, or the judgement of The Flood Emergency Operations Center, an evacuation of the downstream residents may be required within a few hours.

- a. Water within two (2) feet of the top of the dam and rising at a rate which would overtop the dam within one (1) hour.
- b. Cessation of flow from the outlet pipe and flow cannot be immediately restored.
- c. Noticeable erosion or sloughing of the embankment.
- d. Significant increase in seepage, including muddy water.

2. Final Warning

The Final Warning is to notify local authorities that a failure of the Crystal Lake Dam is a likely possibility, and that residents downstream of the dam within the "Limits of Potential Flooding" (see Figure No. 3) should be evacuated as quickly as possible.

Final Warning should be issued when any of the following situations occur, or in the judgment of the Flood Emergency Operations Center, failure of the dam appears likely and immediate evacuation of the downstream area is warranted.

- a. Water level within one (1) foot of the top of the dam and rising at a rate to overtop the dam within one-half hour (outflow normal).
- b. Water within two (2) feet of the top of the dam and rising at a rate which would overtop the dam within one (1) hour (outflow halted and cannot be restored).
- c. Cracking or movement of the dam or spillway.
- d. Substantial erosion or sloughing of the embankment.
- e. Substantial increase in seepage accompanied by soil particles and muddy water.

3. Local Officials to be Notified

Town/City of Middletown: 344-3400 (Switch Board)

Mayor's Office: 344-3401

Middletown Police: 374-6941 or 911

Middletown Civil Preparedness: 346-9351
or contact via Middletown Police

Fire Mutual Aid: 346-8621

State Police: Headquarters Duty Officer: 566-4240

Radio Stations:

WCNX - 1150 AM - 347-2565
WPOP - 1410 AM - 667-2150
WTIC - 1080 AM - 522-1080

Television Stations

WFSB TV- Channel 3 - 525-0801
WVIT TV- Channel 30 - 521-3030
WTNH TV- Channel 8 - 777-3611

4. Limits of Potential Flooding

- a. The attached "Limits of Potential Flooding" map (Figure No. 3) shows areas of potential flooding for the failure of the Crystal Lake Dam. Should the dam appear likely to fail, the area of potential flooding should be evacuated at once.
- b. The following Middletown streets or portions thereof are within the limits of potential flooding:

<u>Streets</u>	<u>Approximate Flood Limits</u>
Cooley Avenue	Main Street Extension west to end
Dorothy Drive	Entire (East Side)
East Flower Avenue	Entire
East Main Street	Elm Street to Jensen Pl. (West Side)
East Main Street	Cooley Ave. to Route 17 (West Side)
East Ridge Road	From Millbrook Road to 500 ft. west
Lee Street	800 ft. north and south of Randolph Rd.
Main Street Ext.	Silver Street to East Main Street
Meadow Brook Road	From Millbrook Road to 200 ft. west
Mill Street	Burr Avenue to East Main Street
Millbrook Road	E. Main St. to 400 ft. south of Wilcox Rd.
Prout Hill Road	Millbrook Road to Sunnyslope Dr. (500 ft)
Randolph Road	Lee Street to Millbrook Road
Ridge Road	Main Street Ext. to Mill Street
Russell Street	Fowler Avenue to East Main Street
West Silver Street	Western 300 feet
Wilcox Road	From Millbrook Road to 1200 ft. east

- c. The following streets cross over Prout or Sumner Brooks and may be washed out or become impassable following a failure of Crystal Lake Dam.

Prout Brook: Millbrook Road
Prout Hill Road

Sumner Brook: Main Street Extension
Mill Street
Millbrook Road
Randolph Road
Ridge Road
Russell Street
Wilcox Road

E. FIELD OPERATIONS

1. The procedures set forth in the statewide Emergency Operations Manual are to be followed.
2. Communications between field personnel and the Flood Emergency Operations Center are to be checked and maintained.
3. The sluice gates are not to be operated during storms without authorization from the Flood Emergency Operations Center.
4. The following additional inspections and flow measurements are to be made:
 - a. Measure and record lake level hourly to nearest one (1) inch. Report readings to the Flood Emergency Operations Center.
 - b. Walk toe of dam hourly. Note quantity and location of seepage, runoff and erosion.
 - c. Walk crest of dam hourly. Note any cracking, settlement or sloughing of the embankment. Note any cracking or movement of the endwall or water control structure.
 - d. Check access route to dam hourly for fallen trees or other blockages.
 - e. Notify the Flood Emergency Operations Center immediately of any of the following:
 - (1) Sudden increase in seepage - estimate flow.
 - (2) Increase in turbidity - seepage turning cloudy or muddy.
 - (3) Sloughing, cracking, movement or settlement of the embankment.
 - (4) Erosion of the embankment.
 - (5) Cracking or movement of the endwall or water control structure.
 - (6) Substantial blockage of the water control structure grating which cannot be cleared.
 - (7) Blockage of outlet pipe or cessation of flow from the outlet pipe.
 - (8) Water level within two (2) feet of the crest of the dam.
 - (9) Water rising at the rate of two (2) feet per hour or more.
 - (10) Overtopping by wave action.
 - (11) Overtopping of dam.

